

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): Process for preparing a composite material comprising an electrode active compound of formula $A_aD_dM_mZ_zO_oN_nF_f$ in which:

- A is an alkali metal,
- D is chosen from alkaline earth metals and elements of column III of the Periodic Table of Elements, with the exclusion of B,
- M is a transition metal or a mixture of transition metals,
- Z is a non-metal chosen from S, Se, P, As, Si, Ge, Sn and B,
- O is oxygen, N is nitrogen and F is fluorine,
- a, d, m, z, o, n and f are real numbers greater than or equal to 0 and are chosen so as to ensure electroneutrality;

and an electronically conducting compound ~~such as carbon~~;
in which a homogeneous mixed precursor containing all the elements A, D, M, Z, O, N and F forming the electrode active compound and also one or more organic and/or organometallic compounds are thermally decomposed, in a short period of time, so as to obtain the composite material.

Claim 2 (Currently Amended): Process according to Claim 1, in which said organic and/or organometallic compound(s) is ~~(are) carbon-based compounds preferably comprising~~ comprise a predominant ~~(major)~~ atomic proportion of carbon.

Claim 3 (Original): Process according to Claim 1, in which A is chosen from Li, Na and K, and mixtures thereof.

Claim 4 (Withdrawn): Process according to Claim 1, in which D is chosen from Mg, Al and Ga, and mixtures thereof.

Claim 5 (Previously Presented): Process according to Claim 1, in which M is chosen from Fe, Ni, Co, Mn, V, Mo, Nb, W and Ti, and mixtures thereof.

Claim 6 (Previously Presented): Process according to Claim 1, in which A is Li or Na, and the electrode active compound is a lithium insertion compound or a sodium insertion compound.

Claim 7 (Previously Presented): Process according to Claim 1, in which the final percentage by mass of electronically conducting compound is from 0.1% to 55%.

Claim 8 (Previously Presented): Process according to Claim 1, in which the thermal decomposition of the homogeneous mixed precursor is carried out under vacuum.

Claim 9 (Previously Presented): Process according to Claim 1, in which the thermal decomposition of the homogeneous mixed precursor is carried out in a controlled atmosphere.

Claim 10 (Original): Process according to Claim 9, in which the controlled atmosphere is an inert or slightly reducing atmosphere.

Claim 11 (Previously Presented): Process according to Claim 1, in which the thermal decomposition of the homogeneous mixed precursor is carried out at a temperature of less than 900°C.

Claim 12 (Previously Presented): Process according to Claim 11, in which the thermal decomposition is also carried out at a temperature above 200°C.

Claim 13 (Canceled).

Claim 14 (Previously Presented): Process according to Claim 13, in which the thermal decomposition is carried out over a duration of 5 minutes to 1 hour.

Claim 15 (Previously Presented): Process according to Claim 11, in which the homogeneous mixed precursor compound is prepared by bringing one or more compound(s) containing one or more element(s) chosen from the elements A, D, M, Z, O, N and F forming the electrode active compound into contact, on the molecular scale, with one or more organic and/or organometallic, compound(s) capable of being thermally decomposed, in order to obtain a mixture of said compound(s) containing one or more element(s) chosen from the elements A, D, M, Z, O, N and F and of said organic and/or organometallic compound(s).

Claim 16 (Currently Amended): Process according to Claim 15, in which the respective proportions and the respective compositions of said compound(s) containing one or more element(s) chosen from the elements A, D, M, Z, O, N and F and of said organic and/or organometallic, compound(s), which are thermally decomposable, are chosen so as to

observe the proportions of the elements A, D, M, Z, O, N and F, and of the ~~carbon~~ at least one electronically conducting compound, in the final composite material.

Claim 17 (Currently Amended): Process according to Claim 16, in which the bringing into contact is carried out in solution, ~~it being possible for said solution to~~ optionally [[have]] having one or more phases in fine suspension.

Claim 18 (Currently Amended): Process according to Claim 15, in which the bringing into contact is carried out by means of ~~a mechanical action, called~~ trituration.

Claim 19 (Previously Presented): Process according to Claim 15, in which, at the end of the bringing into contact, the mixture obtained is dried.

Claim 20 (Currently Amended): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by forming a solution of ions containing the elements to be associated in the compound $A_aD_dM_mZ_zO_oN_nF_f$ and of one or more organic or organometallic[[],] compounds capable of thermally decomposing, which are and by then very rapidly concentrating said solution so as to fix it and to dry it.

Claim 21 (Previously Presented): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by forming a solution of ions containing the elements to be associated in the compound $A_aD_dM_mZ_zO_oN_nF_f$ and of one or more organic or organometallic, compounds capable of thermally decomposing, and by adding a polyol or a polyamine to said solution in such a way as to carry out a polymerization so as to form a gel, and by drying said gel.

Claim 22 (Currently Amended): Process according to Claim 20, in which said ~~carbon-based~~ organic or organometallic compound(s) capable of thermally decomposing, ~~and~~ which is (are) complexing, is (are) chosen from organic acids containing two acid functions or more, alcohol acids, amino acids, ketone acids, acids which are more complicated[[,]] bearing two or more acid functions and other alcohol, amine or carbonyl functions, and mixtures thereof.

Claim 23 (Previously Presented): Process according to Claim 21, in which said polyol is chosen from glycols.

Claim 24 (Original): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by forming a solution of ions containing the elements to be associated in the compound $A_aD_dM_mZ_zO_oN_nF_f$, and by adding to this solution one or more water-soluble gelling organic compounds, in order to form an organic gel comprising said ions, and then by drying said gel.

Claim 25 (Previously Presented): Process according to Claim 24, in which said gelling organic compound(s) is (are) chosen from (meth)acrylamides, (meth)acrylates and polymerizable carbohydrates.

Claim 26 (Previously Presented): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by direct sol-gel polymerization between an alkoxide of the element Z, and a generally complexing oxoanion, in a solution of ions

containing the elements A, D and M to be associated in the compound $A_aD_dM_mZ_zO_oN_nF_f$ such that the metals A, D and M are trapped in the network thus formed, and then by drying.

Claim 27 (Previously Presented): Process according to Claim 1, in which the composite material is in the form of a light ash consisting of very fine grains of between 100 and 5000 \AA in size.

Claim 28 (Original): Process according to Claim 27, in which the composite material also has a specific surface area of from 10 to 50 m^2/g .

Claim 29 (New): Process according to Claim 1, wherein the electronically conducting compound is carbon.

Claim 30 (New): Process according to Claim 16, wherein the electronically conducting compound is carbon.

Claim 31 (New): Process according to Claim 20, wherein the organic or organometallic compound(s) is (are) complexing,

Claim 32 (New): Process according to Claim 21, wherein the organic or organometallic compound(s) is (are) complexing,

Claim 33 (New): Process according to Claim 22, wherein the organic or organometallic compound(s) is (are) complexing,